

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2007/007467

International filing date (day/month/year)
24.08.2007

Priority date (day/month/year)
13.09.2006

International Patent Classification (IPC) or both national classification and IPC
INV. H05K3/24 H05K3/28

Applicant
ORMECON GMBH

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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Date of completion of
this opinion

see form
PCT/ISA/210

Authorized Officer

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2007/007467

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in electronic form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

**WRITTEN OPINION OF THE
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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	<u>10-12,20-22</u>
	No: Claims	<u>1-9,13-19,23-35</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-35</u>
Industrial applicability (IA)	Yes: Claims	<u>1-35</u>
	No: Claims	

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE
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AUTHORITY (SEPARATE SHEET)**

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Re Item V.

1. Reference is made to the following documents:

- D1 : US 2006/035105 A1 (WESSLING BERNHARD) 16 February 2006 (2006-02-16)**
**D2 : DE 10 2004 030388 A1 (ORMECON GMBH [DE]) 26 January 2006 (2006-01-26) cited
in the application**

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parentheses applying to this document):

a coated article (paragraph [0016]), which comprises
(i) at least one electrically non-conducting base layer (paragraph [0017]),
(ii) at least one layer of copper and/or a copper alloy (paragraph [0018]), and
(iii) a layer which contains at least one electrically conductive polymer (paragraph [0036]),
wherein the copper or copper alloy layer (ii) is positioned between the base layer (i) and layer (iii) containing the conductive polymer (paragraph [0020]), characterized in that layer (iii) contains at least one precious metal or at least one semiprecious metal or a mixture thereof (paragraphs [0020], [0030]).

3. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 24 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parentheses applying to this document):

a process for the production of a coated article in the form of a printed circuit board (paragraph [0053]) in which
(1) a layer of copper or of a copper-containing alloy is applied onto the surface of a base layer (paragraph [0054]),
(2) the layer produced in step (1) is structured (paragraph [0055]); and
(3) a layer which contains at least one electrically conductive polymer and at least one precious metal and/or at least one semiprecious metal or a mixture thereof is applied onto the structured copper or copper alloy layer (paragraphs [0056], [0064] and [0065]: other metals such as Au, Ag, Cu etc. are deposited together with a conductive polymer onto the layer formed in step (2)).

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4. The same reasoning applies, mutatis mutandis, to the subject-matter of the corresponding independent claims 29 (use of a dispersion which contains an electrically conductive polymer and a precious metal and/or semiprecious metal) and 32 (coated article obtainable by the process of claim 24) which therefore are also considered not new in the sense of Article 33(2) PCT.

- 6 Dependent claims 2-23, 25-28, 30, 31, 33-35 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT), see documents D1 and D2 and the corresponding passages cited in the search report.